



TARI

COMPUTER
ENTHUSIASTS

WELLINGTON

Wellington Atari Computer Enthusiasts

Dear members,

Herewith the WACE newsletter for November. A fair bit has happened in the past month, and much of it is worth commenting on, but of more immediate interest is the following announcement:

NEXT MEETING!!! CHANGE OF PLACE AND DATE!!! NEXT MEETING!!!

As notified at our last gathering, we are changing the location of our meetings: no longer will we meet at the TAB. Members are summoned to the "LOAVES AND FISHES", which is situated behind the ANGLICAN CATHEDRAL in MOLESWORTH St. Molesworth St, of course, begins at Parliament Buildings and is near the Wellington Railway Station, so our meeting place cannot be more centrally located (See map attached). The advantages of the change are that we will have room to move, to set up more than one display at the one time, as well as air to breathe!

For December only, the meeting will be held on the second Wednesday of the month, ie 12 December (in the New Year we will revert to the first Wednesday).

At our next meeting, we hope to have the usual demonstrations of new software, while Ross Palmer has promised to introduce us to the intricacies of Action! language. A new club tape will be available for distribution. This tape will be a C30, have a strong Xmas/games theme and (given the programmes currently available) it should be a beauty. New members might also wish to obtain last year's Xmas tape (no. 9), which is also a Xmas-oriented C30.

LAST MEETING

Two blokes from the Post Office demonstrated Modems and Videotext. Most interesting. Using Modems, one easily and economically call up the UK, the USA or even Auckland and get into their bulletin boards. Your committee is actively investigating the introduction of Modems into the club.

NOTICE OF SPECIAL GENERAL MEETING

Your committee proposes to call a Special General Meeting at the first meeting of 1985, ie, February, to discuss the following motion:

"That the membership fee for 1985 be set at \$20.00".

It might be thought that this proposal is indecently close to the end of the price freeze, but we have good reasons for it, namely, to ensure that the club can pay the rent for the "Loaves and Fishes" (this is \$385 pa) plus meet the cost of a modem as well as beat the effects of inflation.

THE CLUB DISK LIBRARY

Members know that we have a large collection of "public domain" programmes in our library, all held on disk. The disks in the library are available for hire at \$5.00 per month, plus \$5.00 deposit which is refundable when the disk is returned unharmed. Dennis Dawson (ph 736176), the programme librarian, administers this scheme. What disks to hire? I suggest the disks in "The Best of ACE" series, ACE's Educational Disks, ANTIC's disks and the "Action!" and "Pilot" disks. The contents of the library will be published in the February newsletter. There are two other points: the newly received of these disks are a major source of programmes for our club tapes, so we hold them for three months before they are available for hire. Secondly, there is a limit of 2 disks at anyone time. Out of towners can write to Dennis Dawson at Flat 2/205 Cecil Rd, Wadestown, Wellington.

PRINTER UTILITY DISK

Michael Munro is putting together a disk of printer utility programmes. If you have any of sufficient merit, please let Michael know (ph793363).

CASSETTE DECK ENHANCEMENT

At long last, we can offer a scheme to enhance the reliability of Atari tape decks. How to take advantage of this offer? Ring me at ph736716 and let me have your name and address plus a promise to hand over \$10.00 when asked. The modification that will be done is the "Hi-Rel mod" as set out in a recent newsletter. Callam Katene, a serviceman, will carry out the work.

THE BUDGET

Few expected Rodger Douglas to reduce the tax on computers. The changes are welcome, with some amazing prices (by New Zealand standards) coming into operation- a 1050 and an 800XL can be had for about \$1500, which is a little more than the sum your Secretary paid in 1982 for his 16k 400 and tape deck. Lets hope that as a result of these favourable tax moves New Zealanders will rapidly become computer literate.

SPARE PARTS

Neil Upton (ph328473) has some spare joystick parts.

Yours sincerely,
Des Rowe
(Secretary)

taranaki newsletter

Dear WACers,

I thought it was about time that one of the out-of-towners contributed something to the club newsletter. This article is in two parts; one to tell about activities of Atari-ites in New Plymouth, and the other to tell about my recent experience of attempting to find some Atari hardware or software in the U.K.

Part 1 - New Plymouth has a considerable number of Atari users. Sufficient to set up a users group of its own, known as T.A.C.E (Taranaki Atari Computer Enthusiasts), with a membership totalling 33. Not bad for a little place! The club meets the first Thursday of each month at Einsteins' New Plymouth shop. The group has been in existence for about 15 months and is relatively unstructured. The meetings are an opportunity for people with similar interests to swap ideas and information.

Part 2 - I have just returned from a business trip to London, where I attempted to find shops which sold Atari hardware (out of curiosity, as I don't need anything else at this time), or software (which I did want). Perhaps I didn't go to the right places but I found it extremely difficult to find very much Atari hardware or software of any kind around central London. The shops which had anything at all had a very poor selection and seemed to be wanting to get out of that line. To the extent that I could have bought Atari Word Processor for Pds10(NZ\$25)! 800XL's are selling for Pds169(NZ\$420). There is certainly no shortage of Spectrums, and other unmentionable brands.

There appears to be an active second-hand computer market developing, with a weekly magazine "MicroMart" (35p), specializing in this field.

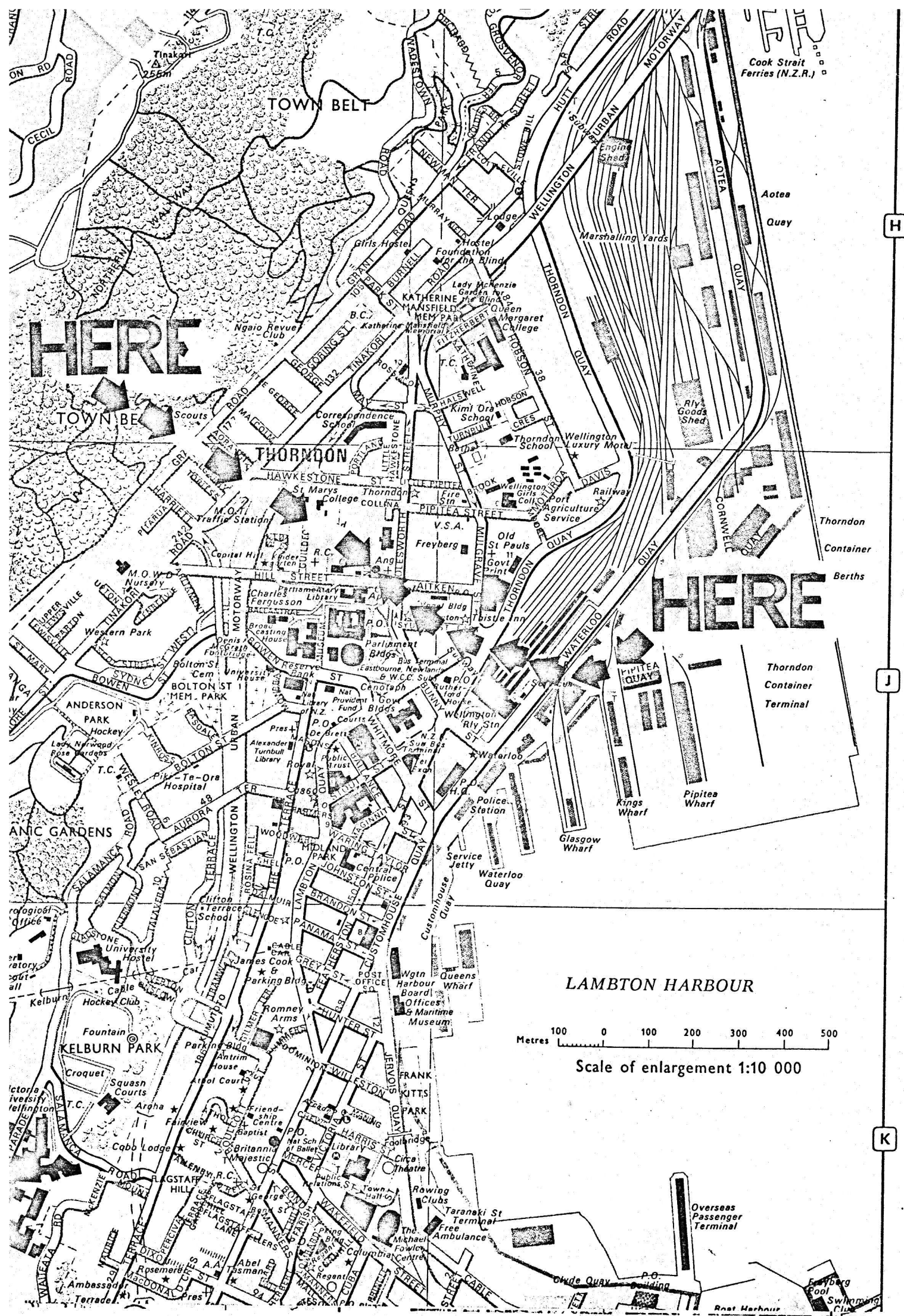
While there I noticed the "1st London MicroMarket" advertised. So early on Saturday morning I took the Underground to a station near to the Wembley Conference Centre and the famous soccer ground. Again I was to be disappointed! At a market with over 100 stalls and displays THERE WAS NOT ONE PIECE OF ATARI HARDWARE!! I heard at least one other disgruntled Atari owner mumbling about lack of support by Atari. On the software side the news was not quite so bad - there was ONE stall selling Atari software - and the prices - Pds5.95(NZ\$15) for Telengard and Legionnaire (the most expensive) down to Pds1.95(NZ\$5) for Stocks and Bonds. Only a small selection, but quite good. Overall the show was very informative. There was a good display of printers and robots in addition to many other brands of computers, peripherals, software, etc. Very interesting.

Having come to the conclusion that Atari is about to sink out of sight, at least in the U.K., I caught the Tube back to central London and consoled myself by going to the stage show "Cats" - fantastic!!!

Regards from New Plymouth.

Maurie Bath

P.S. Article written using Atariwriter and printed on a Super 5 - CP80.



Cook Strait
Ferries (N.Z.R.)

H

J

K

LAMBTON HARBOUR

Metres 100 0 100 200 300 400 500

Scale of enlargement 1:10 000

Overseas
Passenger
Terminal

News and Reviews

by Mike Dunn, Co-Editor

We have received a number of phone calls from Atari explaining they are trying to produce the 800XL's and provide customer support. They are beginning with a new magazine, called *The Atari Explorer*, edited by Neil Harris, formerly an editor of a similar Commodore magazine. Mr. Harris appears to be very interested in customer support as well as User Group support. Each issue will feature a User Group. The first will be ours since we were the first! They want to write about both large and small groups and show how they help Atari owners. At the present time, the entire customer support group consists of only 6 people, so Atari is very interested in supporting user groups all over in providing help such as our *BugBusters* we are trying to form. We want to have a list of people willing to help others by phone or mail. We'll put the list in the Newsletter with the hours you're available to be called. This will be for only as long as you wish, and hopefully we of ACE as well as other groups all over the country could set up a network to take the place of the support system formerly supplied by Atari.

Many new items are going to be available soon for the Atari 800XL. Rumor tells us our good friends at MicroBits in Albany, OR will be coming out with a 1200 BAUD modem as well as a hard disk with an OS by Bill Wilkinson of OSS. These will be sold at their usually unbelievably low prices! AXLON will be releasing the fabled expansion interface box for the 800XL and Batteries Included will add an 80 column board. I don't know anything about any future Atari computers, but again doubt if they will have any compatibility with our 800's. However for the price (now \$170 and dropping), you can not beat an Atari system.

There are new products coming out for the Atari now. Synapse has lowered the prices on all their products now if you get them direct from their office at 5521 Central Ave., Richmond, CA 94804. They even have very low prices on bulk orders for user group members. The Scarborough System 25 N. Broadway, Tarrytown, NY 10591, has released a new improved MasterType for \$40. They have a very nice line of programs, including the fabulous *Your Net Worth* (see below). AMDEK is selling to user groups their 3" disk drives very cheaply. One of the members of the Portland Atari Group has been able to get hold of a large number of brand new Osborne Executive computers, CP/M based portables with two disk drives, 7" Amber screen, 128K etc for only \$895 with a ton of software. I bought one to go with my ATR 8000 CP/M system. If anyone is interested, call Jim at 503-646-3467 for details.

This month, we introduce a new regular contributor, Ralph Walden. Ralph will be writing a column for advanced users in Assembly language and C. He has modified the Deep Blue C from APEX, and the original author will allow ACE to put it in our library for members! Not quite ready, but expect a lot on C in the future. Ralph likes C so much because he can use the same program for various computers, including big mainframes. He was also the first volunteer for the *BugBusters* for help in C and assembly language.

Reviews

by Mike Dunn

Your Personal NetWorth (Scarborough System, 25 N. Broadway, Tarrytown, NY 10591, \$80)

Brought to you by the people who produced MasterType and other fine programs for a variety of computers comes this very comprehensive, quick and easy to use home accounting system. When the package arrives the first thing noticed is the very attractive presentation of their product. It comes in a nice plastic box holding the manual, two disks, and in front, a real silver dollar, so if you spend your last penny on the package, you still have \$1 worth of assets. The manual is a model for the industry in its clarity, not only about using the program, but the explanation of accounting in general. It explains assets and liabilities, as well as when and why to use each. Also included in the package is the book by Silva Porter on money management.

After booting in the program disk, you begin by establishing your accounts. You have a choice of many accounts to use. There are 32 expense accounts, 30 asset accounts, 16 liability accounts and 16 income accounts, plus you can add your own. You then begin by entering your initial balances for asset and liabilities. You can make entries, post entries in a journal of accounts, make budgets, keep bank records, make inquiries, and print out your complete balance statement anytime you want. You can have as many as 10 bank accounts, 350 different account categories, and up to 4000 transactions per disk. Other features include household inventory, stock portfolio analysis, all kinds of help features and trace features, easy bank statement reconciliation, and many other features too numerous to mention.

ACE Nov 84

Not only is the manual outstanding, there are many help screens to guide you in any operation. The screens are attractive and easy to use; the special features of the Atari are well utilized, a surprising feature in a program available for many computers. The program is written in machine language and all operations are fast! If you need such a program, plan on spending several hours entering all your original accounts and data, then it is very easy to keep it up. A perfect program to get for the New Year, and then next year, to get your complete balance sheet, as well as all your income tax information, just press a button!!

The XL Boss (Allen Macroware, POB 2205, Redondo Beach, CA 90278, \$80)

From the makers of DiskWiz and PrintWiz comes Jerry Allen's first hardware project. This is a chip for the 800XL or 1200XL (different one for each) — an OS replacement. It allows you to run almost all of the Atari Software without having to use the translator disk. Other features include not having to hold down the OPTION key to de-select BASIC, the ability to select the "hidden" 4k of RAM for word-processors, spreadsheets, etc., and, most interesting, the ability to have a RAM rather than ROM operating system. You can then easily customize your operating system as you wish, without having to burn an EPROM, etc. You can also use this feature to load in Jerry's monitor program MacroMon XL, then using the warmboot command, boot in any disk, switch back and forth from the monitor to the program, and see how they do various tasks on commercial boot programs. This monitor, besides the usual functions, has split screen capabilities to compare two parts of memory, has a find command can read and write directly to the disk.

The manual gives you ideas on how to modify your OS, such as changing the cursor arrow keys to work without the shift key. As Jerry always has done, the chip will be updated occasionally; the first one out in 2 weeks to allow you to shift back and forth from the standard OS and the Boss XL, so if anyone comes out with an expansion box, etc., you can use it.

In using the chip, I find most programs will load in and run, but some of the older commercial terminal programs didn't. The manual says to switch back and forth between the various options of the XL Boss and the Monitor, when using the function keys, to push the keys just right — so true! The keys are very touchy and need to be pressed the way Jerry states, not because of the chip, but because the keys are not the best quality and are touchy. The installation of the chip in my 800XL required taking the entire computer apart, but the total operation was easy and well explained; it took about 20 minutes. The 1200XL model is \$10 more.

PrintWiz (Allen Macroware, \$30)

This is an update of the program we have used for quite a while to dump the pictures seen in ACE of our programs. Present owners can send their old disk in and get the upgrade for only \$5. New features include adding the DMP-80, Panasonic KXB1090, Mannesman-Tally Spirit 80 & IDS MicroPrism printers to the Epson, Nec, Prowriter and Okidata already supported, a program to directly use Atari Paint and Koala Pad files for dumping and using the LOGO cartridge with PrintWiz. Jerry will continue to update the program and provide those updates at a nominal charge to present owners.

Receiver for Futuretronics

By DAVID SHIRES

THE Atari video game and computer distributor in Australia, Futuretronics Pty Ltd, has gone into receivership, becoming the first sizable victim of the slowdown in the video games industry in recent months.

Two receiver-managers, Mr Geoff Crawford-Fish and Mr Andrew Home, of Deloitte, Haskins and Sells, were appointed by the National Australia Bank on Monday.

Creditors include the National Australia Bank and the company's two advertising agencies, McCann-Erickson and Concorde Advertising

and Marketing Pty Ltd, which between them are owed more than \$500,000.

In a statement late last night, Mr Crawford-Fish said that the company had substantial orders for Christmas from major retailers "which we are going to supply".

"We are negotiating with a large public company in regard to the future operations of the business," he said.

"There is no lack of confidence about the company's future."

Futuretronics gave no hint that it was in trouble until October 15, according to the managing director of Con-

Continued

BUMPAS REVIEWS

The **Writer's Tool** (OSS, \$99 until Dec. 31, a \$30 discount) is a cartridge-based word processor of 20k with a disk containing utilities, demos, and configuration files for numerous printers. This is a full-function program which will meet the needs of the busiest writer. Yet I believe it is easy enough to use in its default configuration for anyone familiar with a typewriter.

You need at least a 48k system and a disk drive. Double density drives are supported. Atari, Epson, Gemini, Prowriter, NEC, Okidata and Comrex printers are directly supported by configuration files provided on the disk. There is also a "generic" printer file for all others. In addition, you may put printer control codes directly into a text file in order to use unsupported printers more fully. It usually takes 6 keystrokes to toggle these unsupported features, but with a printer like mine (IDS480) you're just happy to be able to use the features at all!

OSS informs the user of one known bug: double-wide printing is not properly supported when the line is justified. Double-wide printing works fine in any other context. I think they mean only to speak of supported printers here, because I experienced anomalous behavior in any line in which I combine double-wide with any other printing. I must say this same experience occurs with any word processor I've used for unsupported printers.

The opening screen permits the user to begin typing text immediately. A prompt at screen bottom tells you to press the Option key for the main menu. All full-function word processors should start you off this way. But OSS is one of the few to do so. OSS has provided the most extensive set of cursor controls I've ever seen on a word processor for the Atari. In addition to the usual Tab and cursor arrows, you can move to Beginning or End of file, beginning or end of a line, beginning of the next line, beginning of the next word, and beginning of the next page or the previous page. The cursor may also be moved by the search process. During a save operation to disk, if the cursor is not at the top of file, you will be warned only part of the file will be saved. If you answer "Y" to the prompt for saving all the file, the cursor will then move to top of file. You can also choose a block or underline cursor, and you can adjust the rate at which the cursor flashes.

Editing can be accomplished easily in either an insert mode or a typeover mode. In addition to the usual insert commands, you can also insert all available space (pushing all text after the cursor to the end of the 24k buffer), allowing you to type in some material and then delete all space to the next character to close up the gap. Most editing commands require only one or two keystrokes, and this is where you'll find the economy of keystrokes the most important. Two keystrokes will also "undelete" the last line deleted. This is a nice feature. Previously entered text can be converted to upper or lower case automatically with a 2-keystroke control sequence, saving you some re-typing. The search and replace function also provides a means to delete strings of text by failing to replace the string. You may also delete all text before or after the cursor.

Block operations allow moving text by copying a block to a new location, then deleting the original block. Blocks are highlighted in inverse video. A status line at screen bottom will show you when inverse video is active, and when the caps lock key is active. You are also told how many characters and words are in the buffer, and how much space remains.

Supported printers with the capability can print in the following modes: emphasized, double-wide, italics, double-strike, underline, super- or sub-script. In addition, "split justification" (dividing a line at any point, with characters to the left blocked left, those to the right blocked right), soft hyphens (not used if the word fits in a line) and hard spaces (forcing characters split by a space to be printed on the same line) are available for your use.

Headers and footers can be set to any number of lines and can contain any editing or formatting commands available in the rest of text with the addition of page numbers. The printer can be directed to stop at any point (to change print wheels, for instance).

Dynamic page breaks are not displayed in the editing mode, but on the print menu you can preview the printed text to see where the page breaks occur. Print formatting commands include all the usual page and line lengths and spacing, footer placement, centering, tabs, margins and indentations. But they also include page eject, conditional page eject (to make sure certain lines may be printed on the same page), and alternating the sides of split justified lines on even numbered pages. A page wait command is available for single sheet printing. And double-column printing is accomplished by the simple expedient of telling the program how many spaces you want between the two columns. All your other formatting commands are adjusted automatically for the second column! (This is a great feature!). Two or more files may be "linked" together for chain printing.

The program makes good use of sound to warn of errors and to note different actions. There are 20 custom error messages to lead you to the correct action after a mistake. A buzzer warns and the prompt is re-displayed upon any other error. A Basic program is included on the disk to create custom "macros" to set formats you commonly use and which differ from the defaults provided. The 174-page manual comes in a yellow vinyl 3 ring binder and describes how to incorporate graphics into the body of your printed text. An errata sheet also promises the future ability to program key sequences to translate to graphic sequences. The example they give is Control-C might be used to print copyright symbol. They are also working on developing conversion programs to use to print graphics from MicroPainter, Koala Pad, Atari Artist Pad, etc. files within your text files. If you buy the program now, you will receive the next update free of additional charge.

I like this program. The relatively high price may keep it out of most people's libraries since other full-function word processors can be purchased for as little as \$50. But for someone who does a lot of writing on the Atari, this program will pay for itself with its quality.

SynTrend (Synapse Software, \$70) is a two disk package for graphing, statistical analysis and forecasting. Those familiar with SynCalc and SynFile+ will recognize the pull-up menus which lead you through the program. A student of statistics, or someone using statistics a lot may find this package very helpful.

The two disks contain the programs SynStat and SynGraph. SynStat is really a spreadsheet with some particularly special functions for use in statistical analysis. SynTrend is fully compatible with SynCalc and SynFile+, and with VisiCalc. Once the data file is created or loaded into the program, the "Analyze Data" option on the menu. The program then lists all the variables (column labels in the spreadsheet) you used. Picking one, the choice of "Descriptive" will show the number of entries in the column, their average, standard deviation, variance, standard error, minimum, maximum, and range.

The other analysis performed by SynStat is "Regression" analysis. For this mode you select one variable as a dependent variable and one or more independent variables. This mode is designed to show the relationship between variables. The screen shows calculations for coefficient, standard error, Rsquared, and AdjRsquared. The manual advises the user to refer to a text book on statistics if these terms are not familiar.

The results of regression analysis may also be shown on a screen titled "Residual Analysis". Here columns showing the actual entries, together with the predicted entries and the difference between actual and predicted (residual). Any of these screenfuls of calculations can be dumped to a printer.

SynGraph is used to create labeled, high resolution, color-coded graphs from data entered in SynGraph, SynStat, SynCalc, SynFile+, or VisiCalc. You may choose a line graph, bar graph, scatter plot, or pie chart. The bar graphs may be of the cluster or stacked types. Graphs may be rescaled and relabeled. Up to three factors at a time may be placed on the same graph. The graphs may be saved in disk files for later use, or dumped to a compatible printer.

This is a fun package to use. And for small business use, one might find it helpful for analysis of sales data. If you're a student, the printed output will make your papers and projects very professional indeed.

From page 1

corde, Mr Ivan Abbott, when it defaulted for the first time in his three-year relationship with the company.

That was followed by a creditors' meeting last Friday, Mr Abbott said.

"We'll be making an application late in the week for a provisional liquidator to be appointed," he said yesterday, although Mr Crawford-Fish indicated that such an action was unlikely to be necessary, and negotiations with the agency were continuing on the matter.

The company had apparently been attempting to redirect its marketing efforts more heavily toward computers than software.

The change in marketing strategy saw the appointment of McCann-Erickson to handle the bulk of the company's advertising business at the expense of Concorde as recently as May.

It also saw the appointment of new senior marketing and public relations personnel.

But despite these moves, the company now faces receivership just as it is moving into the peak sales season in the video game marketplace.

As recently as last month, the Futuretronics manager for public relations, Mr Greg Every, told *The Australian Financial Review* that Australian sales of Atari games this year had increased 10 to 15 per cent over last year's figures, and estimated that about 250,000 game units had been sold here since their launch.

But he added that sales of hand-held video games had levelled off while sales of television and personal computer games were climbing.

Atari itself was in serious trouble until earlier this year when Warner Communications Inc sold the company to an ex-president of rival manufacturer Commodore, Mr Jack Tramiel.

Mr Tramiel immediately sought to reposition the troubled US manufacturer from a video games company to a computer company.

ACE Nov 84

Atari Appears Set to Cut 800XL's Price

By MICHAEL W. MILLER *2/4/84*

Special to THE ASIAN WALL STREET JOURNAL.
SUNNYVALE, California — Atari Corp. apparently is planning to cut the price of its 800XL home computer but denied speculation it is considering phasing out the product.

The closely held computer and video-game maker said it would announce next week "a redirection in pricing and marketing strategy for the 800XL." The computer currently retails for \$179 and accounts for about one-third of Atari's current sales.

James Copland, Atari's vice president for marketing, stressed that next week's announcement wouldn't foreshadow a move to drop the product, which is the company's only computer on the market. "We fully expect to manufacture and market the 800XL in 1985," he said.

Holiday Sales

Mr. Copland said that any price reduction on the 800XL would be made solely to improve holiday sales and to give Atari a higher profile in the market. He denied speculation by some industry analysts that Atari is considering cutting the price to generate quick infusions of cash to help finance its ambitious new-product plans. "We are not doing it for quick cash. We are doing it to insure that our presence within the market is realized," he said.

While emphasizing Atari's commitment

to the 800XL, Mr. Copland noted that, as reported, the company plans in January to bring out a new computer line that includes products of similar power to the 800XL as well as ones two and four times as powerful.

Meanwhile, he said, two factories in Asia and Ireland that build the 800XL are producing the machines at full capacity.

A spokesman for Commodore International Ltd., Atari's fierce rival in the home-computer market, said several major customers recently reported that Atari offered them the 800XL at \$105 each wholesale. Home-computer retail prices generally aren't far above wholesale prices.

Commodore Won't Match Cut

The spokesman said Commodore wouldn't respond to an Atari price cut with similar reductions. "From our point of view it's a close-out and it's the beginning of a discontinuation of the line," he said.

Douglas Cayne, an industry analyst with the Gartner Group, asserted that the 800XL's days are numbered. "Atari is losing a great deal of credibility and market momentum ... and the (800XL's) technology cycle is clearly at or past its peak," he said.

A pre-Christmas price reduction would be true to form for Atari's chairman, Jack Tramiel. Before he bought Atari this summer, Mr. Tramiel had turned Commodore

into a home-computer giant chiefly through cutting manufacturing costs and slashing prices.

Mr. Tramiel cut the 800XL's price this summer, to \$179 retail from its previous range of \$229 to \$249. A second cut in price would indicate that the first reduction didn't provide enough of a sales boost for the 800XL. Home-computer vendors generally are reporting disappointing pre-holiday sales.

Left Market

The Commodore 64 home computer, which retails for \$199, has 32% of the home-computer market, compared with 3% for the 800XL, according to InfoCorp, a market-research company.

Several U.S. home-computer makers have dropped out of the market in recent years as consumer interest has failed to live up to the industry's once-lofty expectations.

Texas Instruments Inc., Timex Group Inc., and Mattel Inc., among others, have bailed out of the home-computer market in the last two years because of persistent losses.

As reported, Coleco Industries Inc., which makes the Adam computer, also appears to be preparing to get out of the market. Coleco said it isn't "closing the door on Adam," but a supplier said Coleco had canceled its contract for printers for the machine.

Personal Computer Sales Seen Climbing

By DAVID LAMMERS *5/8/84*

TOKYO (AP) — Sales of personal computers world-wide will exceed \$80 billion in 1988, up from about \$26 billion this year, according to Dataquest, a California-based technology research firm.

"Personal computer sales will continue to see very steady growth, at a 25% compounded annual growth rate," predicted O. Ralph Finley, general manager of Dataquest's technology information division, preceding an industry seminar here Thursday.

Mr. Finley also noted that the prices of computer hardware are falling about 20% a year.

'Nowhere Near Bottom'

"We are nowhere near the bottom (of personal computer prices)," he said. "Just as mainframe (data processing) prices have come down 20% per year for 20 years, and minicomputer prices have dropped 20% for 10 years, we'll continue to see those same curves for mainframe, minis, and now personal computers."

A personal computer system similar to the Apple II model, including a floppy disk drive, printer and monochrome monitor, cost about \$3,000 in 1980. The same system now costs about \$2,000, and the price will drop to the \$600 range by 1988, he said.

Similarly, more powerful 16-bit personal

computers with larger internal memories, color monitors, and much larger storage capacities will drop to less than \$3,000 in 1988 from about \$6,000 now, he said.

The biggest increase in computer usage will come in the office, according to Dataquest, which estimates that, of all U.S. white collar workers with the potential to use a computer or data terminal, about one-third will do so in 1984.

Joan Grim, manager of a joint market research effort by Dataquest and its parent company, A.C. Nielsen Co., said many people who come into contact with small computers at the office or at school are buying other computers for the home. A.C. Nielsen recently was acquired by Dun & Bradstreet Corp.

About 20,000 randomly selected households throughout the U.S. four times a year are being asked about their attitudes toward personal computers, Miss Grim said.

In November 1983 only 6.2% of the households had a personal computer, with 4.4% of those having a computer costing less than \$500 and 1.8% having a computer costing \$500 or more.

Six months later, in May 1984, a 60% increase was recorded. About 9.4% of the contacted households owned a computer, 6.3% with an under-\$500 machine and 3.1% with a computer costing \$500 or more, she said.

"Our estimate now is that the growth (in home computer ownership) will continue to about the 18% level," Miss Grim said. "It will take some kind of breakthrough for it to exceed that level, with the breakthrough probably being in the area of communications."

Nearly one-fourth of the \$500-or-over computers are equipped with modems, devices which allow computer data to be transmitted over telephone lines, she said.

Computer Shopping

She added that home computer purchases might be stimulated by such telecommunication services as computer shopping.

Most of the more expensive homes computers are used for word processing as well as playing video games, which continue to be popular because of their growing sophistication.

"Games will probably continue to be the computer application used most often, but they are not the reason why people buy computers," she said. She added that 80% of the computer owners said they were "very satisfied" with their investment.

"Once the computer is in the home, people find uses for it. The hard part, for the manufacturers, is to get one into the home," Miss Grim said.

NO COMPANY in recent business history better fitted the definition of a corporate meteor than the video game and home computer outfit, Atari.

In eight short and spectacular years it flashed from nowhere to being a company with a \$US3 billion turnover and 11,000 employees. Overnight it flashed back into darkened obscurity. When the business publishing giant McGraw Hill printed a slim, corporate history of Atari in June it simply and fittingly called the book, *Zap!*

Last week Australia — like a lot of other Atari markets since the big burnout at the end of 1982 — got a spray of the cosmic fallout. Atari's Australian video game and computer distributor, Futuretronics Pty Ltd, went into receivership after it defaulted on debts to creditors including its two advertising agencies, McCann Erickson and Concorde, to which it owed more than \$500,000. But the receivers said they were confident about its long term health.

Little explosions like that — sort of like the bleeps in one of the company's Pac Man, Space Invaders or E.T. Games — have been cropping up in Atari's troubled galaxy regularly as its latest owner searches for a solution. Atari changed hands in July. The giant Warner Communications Group, owner for the past eight years, decided finally to unload it.

So for the bargain price of \$US240 million — remember this was a company that was making \$150 million a quarter 18 months earlier — a tough entrepreneur called Jack Tramiel took it over. He has been busy cutting its staff back to 1,000, turning over its management and moving most of its American production to low cost Asian plants.

It is not an easy task and, as the Australian receivership attests, it is not at all clear that it will work. Essentially Atari fell to earth with such a thud because it was built on a couple of fads. And the fads went as quickly as they came. The first was video games and the second was the cheap, limited home computer.

They are often classed together at the "junk" end of the computer business. After the novelty of playing Pac Man and E.T. wore off consumers wanted computers that could perform more utilitarian functions. Two things happened: more sophisticated personal computers got a lot cheaper and competition got more fierce at the cheaper end.

Atari and rivals like Mattel, Coleco, Commodore and Texas Instruments started a round of ferocious inventory or pure survival costcutting. Texas Instruments, for example, decided to get out of the field all together. Some models it had once sold for \$US1,100 it started discounting to \$US49 last Christmas just to clear its stock.

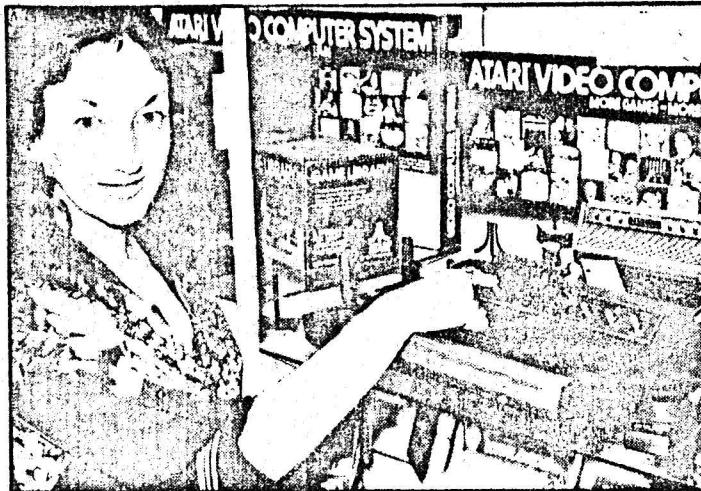
Whatever market was left to them was saturated at a level that produced very little profit for any of them. The industry lost \$1 billion in 1983.

Two of the ramifications of the Atari collapse have gone beyond the gee-whiz business of computer games and cheap computers that it once dominated.

Atari at one stage was threatening to sink Warner Communications — or at least make that motion picture, cable and publishing giant susceptible to takeover bids like the one that Rupert Murdoch mounted — because its extraordinary losses were putting the whole corporation in the red. Last year Atari lost \$US536 million.

Warners as a whole ended the year with a loss of \$US424 million. Its share price plunged from \$US63 to \$US19. Which, of course, is why it sold.

Another of the wider repercussions of the



Atari boomtimes... the Futuretronics Australia showroom at Botany, Sydney in 1982.

THE PAC MAN FALL OUT

Futuretronics Pty Ltd, the Australian distributor of Atari video games and computers, was placed in receivership last week. Another nail in the coffin of the group which brought us Pac Man and E.T. games and in eight years sped from nothing to a \$3 billion annual turnover and then back to obscurity. PHILLIP MCCARTHY reports from New York

Atari debacle is that it undercut the economic theory about employment trends in developed countries.

The theory was that as jobs disappeared on the assembly lines of manufacturing hi tech industries would replace them. Former Atari plants in hi tech centres like California's Silicon Valley and Texas's El Paso are now as deserted as the steel plants of Pennsylvania and Ohio: the Atari high tech jobs went offshore too.

Yet a few years ago Atari was the model of the way forward for American business. Typically, it was the sensational concept of one very smart man, Nolan Bushnell, who will go down in history as the father of the video game. He was the first to capitalise on the possibilities of hooking a television set up to a miniature computer.

He was very smart. He got out with his millions early on and invested them in sensible things like pizza parlours and venture capital.

In 1976 Warner's flamboyant chairman Steven Ross bought Atari from Bushnell for \$US28 million. For some years it was not a bad business and enhanced his reputation. In a couple of years it came to represent half of the

conglomerate's sales and 60 per cent of its profit. And so Ross and his top brass pretty much left it alone.

It was a big mistake, of course; but at the time it seemed sensible because the head office crowd did not know much about computers or games.

When that best selling anatomy of corporate success, *In Pursuit of Excellence*, was published it cited Atari as one of the prime examples of excellence in action. Businessweek magazine recently stated quite baldly that the company should never have been there: it breached virtually all the rules the authors themselves laid down for success.

One of the rules was a company's need to keep an ear close to the ground to detect and be ahead of changes in consumer preferences.

Certainly, that was a major failing at Atari. The company's video games were so wildly successful that Atari executives were deluded into complacency and did not see fundamental shifts taking place in the consumer electronics market away from computer games and towards home computers.

By the time they picked up on that the market was moving away from home computers and towards personal computers. They never caught up. Their home computers were not perceived in the market place to be any better than the opposition. Its 400XL and its 800XL were also very often more expensive than the comparable Commodore model.

But the optimism of Atari's runaway results filtered up in Warner's. Because Atari was pumping between \$US100 million and \$200 million a quarter into the parent company Warner embarked on a some risky ventures — like a very expensive cable television scheme with American Express — convinced that it would always have Atari's cash flow to fall back on.

When the awful truth finally dawned Warner's and Atari tried all sorts of things. They started moving production offshore.

And they started making software that would fit competitors' computers (which seemed to be a tacit admission that if you can't beat them join them). Finally they brought in a marketing honcho from Philip Morris cigarettes, James J Morgan, as chief executive; he

came promising to "Minimise bureaucracy and duplication of effort".

He had a point: even at Atari's Silicon Valley headquarters only two of his 15 senior executives worked in the same building as he did.

Morgan vowed: "I believe over the next 12 months this beleaguered company is going to surprise a lot of people."

A couple of months later, however, The New York Times reported: "So far Mr Morgan has not been able to stem Atari's problems."

"After announcing the introduction of four new computer products only two, the 600XL and the 800XL have made it on to the market so far. Atari's entry into the software market has been poorly timed, its much heralded Ataritel division has never gotten off the ground and no new computer products are expected in the near future."

"Some analysts estimate that Atari still has some \$300 million to \$500 million in write off ahead."

In January this year Morgan did announce a major shake up of Atari's management. There had long been evidence that lack of supervision by the parent company had led to questionable practices in the subsidiary. In September 1983 Morgan's predecessor as chairman, Raymond Kasser, was charged over breaches of the corporate code.

But it has all badly dented Steve Ross's image as an astute businessman. At Warner's there has been speculation that he might lose his prominent role. Fred Anshel, an analyst with Dean Witter Reynolds, said: "Unless he can keep all these people at bay it is difficult to see where Steve Ross will end up."

In *Zap!* author Scott Cohen wrote: "The role of Steve Ross in the Atari problem was hard to figure. Many analysts and stockholders blamed the mess on Steve Ross and his decentralised policies and laissez faire approach."

How could Ross, he asked, let a subsidiary that contributed 60 per cent of group profit get so out of control?

Certainly it was the debilitated state that Atari's staggering losses had burnt on to Warner's bottom line that prompted Australian publisher Rupert Murdoch's abortive, but profitable, bid to take the parent over earlier this year. Murdoch started by buying 6.7 per cent of the company in December last year.

Later he announced plans to buy between 25 per cent and 49 per cent. Finally Warner's bought him off — but not before selling off Atari themselves.

Most likely, if Murdoch had succeeded in the bid he would have sold Atari also: the last thing he needed was another lemon.

Buyer Jack Tramiel, 51, was no newcomer to the low priced computer business. It was he who founded Commodore 25 years earlier and brought a certain acumen to its operations. But he had resigned from that company in January after a dispute with its board over whether he could give his son a top job there.

The perception was that he probably wanted Atari so he could settle a few old scores with those he left behind at Commodore.

He has already had a couple of brawls with them. Commodore sued Atari when Tramiel recruited four key employees from them. Commodore wanted an assurance that they would not use their inside knowledge of Commodore products and techniques. Later Tramiel sued when Commodore took over a small computer firm called, Amica.

He claimed that Amica, developer of a new and efficient computer, had already agreed to sell out to him.

He has also been spectacularly stuffing the cleaners through Atari again — sacking staff, closing plants and discontinuing lines.

Trimiel is taking Atari into the more lucrative personal computer area which will pit it against successful firms like IBM and Apple. In an interview this week Trimiel disclosed plans for two new personal computers Atari plans to introduce next year. He said they would sell for under \$US1000.

He also announced a cut in the price of the company's 800XL home computer by about one third. This was because of savings he had made in manufacturing costs since acquiring Atari. He estimated that sales of the 800XL would reach 500,000 in the last six months of the year and generate revenue of up to \$US100 million.

In describing his strategy for Atari's new machines, Trimiel outlined a strategy similar to the one he used to build Commodore: selling at cheap prices through mass market channels. He said: "I'll sell personal computers to individuals. I do not intend to sell actively sell products to the office."

He also claims that the company is solvent again. But one thing is certain: Atari doesn't want E.T. phoning home in the near future.

POINT PIPER

15 Wolseley Road



Modern palatial Home or 2 apartments

This 6 b/r contemporary home has it all. Pool and sauna included. Spacious entertaining areas. Prestigious location. Architect designed and soundly built. Council approved for conversion to 2 luxury apartments.

Details: DOUBLE BAY 327 7971, a.h. 90 1120.
Co-agent: RICHARDSON & WRENCH DOUBLE BAY 327 5825 Ext. 2.
8 CROSS STREET, DOUBLE BAY 327 7971.

(09121)

AUCTION

Raine & Horne
Pty Ltd

ATARILAB STARTER SET

A tool for measuring temperature in laboratory experiments, for ages nine and up.

HARDWARE: Atari micros (16K cartridge)

SOURCE: Atari, Inc.
P.O. Box 61657
Sunnyvale, CA 94086

COST: \$89.95

BACKUP: Not provided

PREVIEW: Contact retail outlet

DESCRIPTION: HOW FAST does a cold soda "lose its cool" in a warm room? Do crickets chirp faster as the summer nights get hotter? The *AtariLab Starter Set* gives you a practical, inexpensive method of answering these, and many other questions, by turning your microcomputer into a laboratory for conducting scientific experiments.

This first module in the *AtariLab Science Series* is used specifically for measuring temperature. (Other modules are being designed for measuring light intensity, degree of angle, and heart rate, and will be available soon.)

The *Starter Set* comes with an *AtariLab* interface, which you plug into the game port of your computer. You then insert the temperature module cartridge, and connect the temperature sensor to the interface device.

Thus equipped, your Atari Laboratory Station can measure temperature changes (between 23 and 113 degrees Fahrenheit) over a period of time (from ten seconds to 24 hours), record and analyze the data, display results graphically or in a thermometer bulb pictured on the screen, and print them out for a hard copy record.

The program setup and instructions are detailed in the *Starter Set* manual and project guide. This useful manual also discusses some of the principles of heat and temperature, and describes seven beginning projects you can do that will enhance your understanding of the software and equipment, while experimenting with everyday phenomena. These include, for example: evaporation, condensation, and dew point; graphing temperature changes over time; Newton's Law of Cooling; and the effect of salt on ice.

The manual includes reproducible tables and graphs for recording information as you experiment. It also suggests how to write your own programs, in BASIC and Logo, that will record and analyze temperatures and display them on the screen.

Applications: Due to space requirements, the *Starter Set* may be most profitably used with groups of students or in class demonstrations. Teachers could assign small groups to a particular project, or students could design their own projects and test them at the laboratory station.

Comments: As an introduction to scientific inquiry through hands-on experiments, the *AtariLab Starter Set* is very complete. By "doing" rather than "hearing," students can grasp the true nature of the concepts they are studying.

The program also offers an excellent visual display of graphing. We heard several students comment, as they were using the program, "Now I understand what a graph is."

The *Starter Set* is also remarkably easy to hook up and use. It allows for the printing of graphs and data, which is important in evaluating and interpreting results. It also makes it easy to convert Fahrenheit temperatures to Celsius, and to change time scale limits, making it quite adaptable to different experiments.

It does not, however, allow the user to set temperature gradients, which is a real drawback. This means that for some experiments you have to manipulate fluid temperatures to fit the graphing capabilities of the program. To remedy this, the temperature scale should be extended to well below freezing and slightly above boiling. Also, it would be nice if a second probe were available as an option.

The *Starter Set* is a good example of valuable computer use in the science and math curriculum. The computer can provide quick and accurate measurements and rapid translations of data—all of which encourage further questioning and experimenting.

Teachers who spend time in the lab with their students should find lots of applications for the *Starter Set*, and will find it easily adaptable to their needs.

Students will also come up with their own ideas for using the set—and this is perhaps the real value of the program. It is a tool, one that provides a context for you and your students to supply the content. The computer records the data; you do the thinking.

Reviewed by:
Bill Platt, Teacher
Dave Bliss, Teacher
Redwood Valley Middle School
Redwood, CA

U.S. Software Maker Challenges 'Hackers' Trying to Break Codes

By WILLIAM M. BULKELEY

Special to THE ASIAN WALL STREET JOURNAL

NEW YORK — Most businesses fear computer hackers. But, an Albany, New York company is challenging them.

Elite Software Systems Inc. makes a software program called Encomp that encrypts information stored on computer disks: The \$99.95 program makes the disk unreadable without the right password, and Elite is offering \$10,000 to anyone who can break its system using a personal computer.

The contest is an effort to distinguish Elite from the numerous companies that have developed systems to foil hackers.

Three Replies So Far

The company has sent out 6,000 entry forms but has received only three replies — all wrong, says Philip Cohen, vice president of sales and marketing. A systems analyst, he says, "called up to bust my chops" and outlined a way to crack the code using a million-dollar mainframe computer. That doesn't count, Mr. Cohen says; only personal-computer users need apply.

A North Haven, Connecticut company, Optimum Electronics Corp., recently completed a similar contest. First prize: its president's 1984 Pontiac Trans Am. Based on a mailing list compiled by the Computer Security Institute of Northboro, Massachusetts. Optimum sent out 55,000 post cards challenging people to crack the device it developed to protect computers from unauthorized entries.

Donald Moseley, the marketing vice president who came up with the idea — but not the car — says more than 750 people called the company's computer. But no one managed to obtain the secret message that would have entitled them to the car.

Risky Challenge

Challenging people to break codes can be risky. Several years ago Ralph Merkle, a computer scientist, offered a \$1,000 reward to anyone who could break a new type of code he devised as a graduate student at Stanford.

Last month he wrote a check to Ernest F. Brickell, a scientist at the Sandia National Laboratories in New Mexico, who spent two years working on the problem. To solve the code, Mr. Brickell devised a formula that can be run on a Cray supercomputer in less than two hours. But renting time on the Cray costs about \$2,000 an hour, Mr. Brickell says.

Despite such risks, officials at Elite Software are confident that their system is secure. Adds Mr. Cohen, "We will not pay for the psychiatric bills if anyone has a nervous breakdown trying to crack it."

PERIPHERALS

Do Drives Need Cleaning?

MYT 6.XI.84

By PETER H. LEWIS

HOW often should diskette drives be cleaned? A survey of manufacturers, computer dealers and service technicians yielded conflicting suggestions.

The advice seems to fall into two camps. The people who build and install the disk drives said cleaning is rarely necessary, and some of them emphatically warned that the drives can be seriously damaged by the inexpensive cleaning kits sold in most stores.

On the other hand, some of the people who sell the computers and the disk drive cleaning kits recoiled at the thought of letting even a week go by without swabbing the decks.

Although fancy cleaning kits can cost as much as \$50, the most popular versions cost about \$10 and consist of a slightly abrasive floppy disk cleaning pad and perhaps a vial of alcohol.

Why would one need a disk drive cleaner in the first place? Floppy disks inevitably introduce tiny bits of grit into the drive unit, either through hitchhiking dust particles or as loose flecks of the magnetic material that holds data on the diskette. If this debris builds up significantly, it can harm or even ruin other diskettes.

But how long does it take for a significant risk to develop? According to a representative in the service department of one of the large retail computer franchises in Manhattan, users should clean their drives "at least" once a week. This was echoed at a several other retail computer dealerships.

Such advice makes computer manufacturers howl "fatal error."

"Perhaps once every six months," a technical adviser at Kaypro allowed, "but you wouldn't want to clean it much more than that. Some kit disk cleaners on the market are mildly corrosive and if used frequently might harm the disks."

A spokesman at Apple said the company does not recommend the cleaning kits at all. "Users who try the store-bought cleaners could end up messing up the drives more than fixing them," he said. "If there's a problem, take the drive to an authorized dealer."

Even Verbatim of Sunnyvale, Calif., which makes Datalife, one of the most popular kits, says cleaning

the drives daily is silly unless "hundreds or thousands" of diskettes are run in and out regularly. For the average home or office user, a Verbatim technician said, once every month or two would suffice. He denied that his company's kit would harm disk drives unless it was used improperly. Verbatim engineers ran a cleaning disk nonstop for two days — the average use is a few seconds — and there was no measurable wear, he said.

Obviously there is a disagreement, but the weight of the evidence certainly goes against frequent cleaning, say, more than once every few months. If the drive has been functioning well, the adage "if it ain't broke don't fix it" would seem sensible. If the drive is not functioning well, it probably requires the services of a qualified repair technician.

A recommended course of action would be to invest the cost of one of the cleaning kits in Henry F. Beechhold's "The Plain English Repair and Maintenance Guide for Home Computers" (Simon & Schuster, \$14.95). Mr. Beechhold gives clear and well-illustrated instructions on how to properly clean a disk drive in just a few minutes and for just a few cents worth of materials.

Fun and Games

Using a computer exclusively to do spreadsheets is like owning a car exclusively to drive to the dentist, as far as many computer game enthusiasts are concerned. There comes a time to put the top down, hit the accelerator and have some fun.

Despite all the somber intonations about integrated environments, data base blueprints and the like, some estimates say half of all software being sold is for fun and games.

So, who makes the best games?

More than 10,000 readers of Electronic Games magazine voted on that question, and winners were honored recently with the industry's equivalent of the Oscars, the Arkies.

This year's top Arkie award went to "Dr. J and Larry Bird Go One on One," distributed by Electronic Arts (2755 Campus Drive, San Mateo, Calif. 94403, telephone 415-571-7171). It costs \$40 and is available for the Apple II family, Atari, Commodore 64 and I.B.M. PC, and requires a joystick and disk drive.

Magazine reviews have been enthusiastic. The software designers did not just license the names of the two professional basketball stars; they actually sat down with Julius Erving and Larry Bird and worked with the players to impart each man's special moves and strategies into the software characters.

Arkies were awarded in more than 20 categories. The full list of winners will be published in the January issue of Electronic Games magazine.

A Pilgrimage to Mecca

This past week I attended a seminar in the San Francisco area for two days. Since I don't get down to that region very often I took the opportunity to plan several meetings while I was there. There was much to do, so I scheduled 4 days in the Bay area.

My first stop was a visit with our friends at ANTIC magazine. You may be happy to hear ANTIC will be placing a stronger emphasis on USER GROUPS in the future. They will be working closely in this effort with MICROBITS and OSS (Optimized System Software) in providing meaningful support to the User Groups. ANTIC will also be making a special effort to keep you all abreast of the current news from or about ATARI. (More about ATARI later.) I spent a very pleasant afternoon with Jim Capparel and Gary Yost, discussing the User Group issue as well as technical goodies such as HARD DISK DRIVES, EXPANSION CHASSIS, 80 COLUMN CARDS and RAMDISKS for the XL computers. Gary and I had a very pleasant lunch at THE WATERFRONT, where the prawns are outrageously delicious. Before I left ANTIC, Gary presented me with a copy of "THE BEST OF ANTIC volume 1". In some of my slower moments I have perused this fine volume and wish I could give you a review, but am a bit busy as yet. I will probably hand this to a TRUSTED member of ACE long enough for them to do a proper review next month.

The next day I visited OSS. Bill Wilkinson and Mark Rose were kind enough to devote the afternoon to discussions of exactly which features are important to have in a DOS for a PARALLEL HARD DRIVE. Bill also demonstrated the new WRITER'S TOOL word processor.

AT LAST, somebody has a really powerful, DOS compatible word processor. (I have always used LETTER PERFECT by LJK, and getting my articles ready for submission has been an exercise in self abuse, since I normally transmit them over the MODEM.) The WRITER'S TOOL has NEARLY ALL of the capabilities of LETTER PERFECT(tm) and is user-friendly to boot. Don't get me wrong, I think Letter Perfect is still the most powerful word processor available for the Atari, and will continue to use it for my personal files, but OSS has another winner on their hands.

Friday I left the seminar a bit early in order to meet with BRIAN KERR and JOHN SKRUCH, marketing managers of Hardware and Software respectively. I went into the meeting with some reservations about what I might hear and see, and was very pleasantly surprised. Brian and John are both enthusiastic and knowledgeable. They are extremely aware of the circumstances resulting in the virtual death of ATARI, Inc. and are determined to avoid those pitfalls. There is a new spirit at ATARI. Indeed, there is a new ATARI at ATARI. Take heart: the venerable 800 XL will continue to be produced in quantities, and at prices which will probably induce people such as myself to go out and buy an extra or two. (spares, you know.)

The peripheral products the old ATARI released with their equipment are being evaluated, and those not measuring up will be dropped, while the company will pick up lines of TOP QUALITY peripherals to replace them with. NEW and exciting software is being selected for future release. Negotiations are under way with various suppliers, vendors marketing types and such.

I expect the January CES to be a banner event for ATARI. I have reason to believe they will have some SHOW STOPPERS!! Overall, I think the purchase of ATARI by the Tramiel family is probably going to be the best thing to happen to Atari since the lamentable take-over by WARNER COMMUNICATIONS. After all, if Jack Tramiel can take a second-rate turkey of a computer like the COMMODORE 64 and make it the NUMBER 1 SELLER among home computers, think what he can do with the help of his sons and a FIRST RATE computer like the ATARI.

ATARI USER GROUPS will not be abandoned. Many of you are aware the old ATARI spent a small fortune on "support" in the past. The support amounted to very little in the way of worthwhile or legitimate assistance to the user groups. While the new ATARI is not able to spend large amounts of cash on this, a plan has been developed to allow the USER GROUPS, 3RD PARTY VENDORS, and ATARI CORP. to mutually help each other to the fullest extent at a minimum of cost. ANTIC, OSS, MICROBITS, and CHAOS were heavily involved in the development of the new system. You will undoubtedly hear more of this in the next few months.

I came away from San Francisco with a deep sense of relief at the attitudes and willingness to commit time and resources displayed among those I spoke with. Peace be upon you, my children; all is well in the land of ATARI.

— Kirt E. Stockwell
Roving past president

ATE MW'84

BUSINESS BRIEF

Computer magazines' programme for reader friendliness

The boom in computer magazines is ending. Smart publishers are now preparing for the bust. The number of non-academic computer magazines in America has almost doubled in the past four years, to around 200. In Britain, computer buffs can choose from 127 magazines, 160% more than in 1981. This growth has given publishers a batch of entrepreneurial success stories to rival those pouring out of Silicon Valley itself. It may soon also provide some spectacular failures. Competition is fierce, and the glutted market for computer magazines is changing as fast as the technology.

A few years ago, there were only two types of computer magazine readers: data-processing professionals and games-playing, programme-writing amateurs. Today personal computers are popping up on the desks of even technically near-illiterate executives and professionals. Although advertisers of everything from electronic spreadsheets to whisky want to tout their wares to such an audience, computer-magazine publishers are not proving equally adept at reaching them. With the increase in the number of computer magazines, advertisers are becoming more selective. Some advertisers—particularly producers of business software—are even switching to general-interest publications in search of new customers.

Today's computer magazines fall into two broad categories:

- General ones, such as Personal Computing and Datamation in America and Computer Weekly in Britain, which aim at computer-users with similar interests (ie, business computing or games-playing) no matter what sort of machine they own.
- So-called machine-specific titles, such as Softalk/Apple and Sinclair User. They concentrate on a particular type of computer and review all the software and hardware available for it, whatever task the new products are meant to perform.

New magazines still appear all the time. Haymarket's MSX Computing, aimed at users of new Japanese computers using the MSX operating system, is one

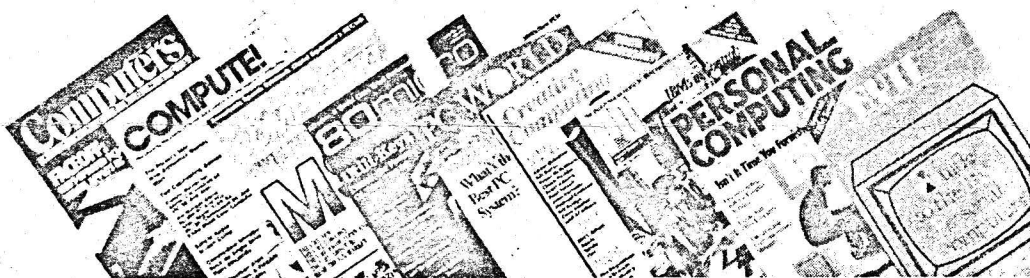
of the most recent in Britain. Indeed, it has beaten MSX machines into the marketplace. But other magazines have already folded up. Jr and Desktop Computing, both published by CW Communications, were two in America to close. JR's demise

shows the perils of machine-specific titles: it flopped along with IBM's PC Jr, the computer at whose users Jr was aimed. In Britain, Soft, Bunch Books' monthly about software, and Computer Merchandising International, an International Thomson Business Press publication aimed at the European market, folded earlier this year.

On both sides of the Atlantic, advertising revenues decide the fate of computer magazines. At first glance, advertising seems to be booming. In the first half of this year, the total advertising revenue of American computer magazines was \$85m, five times

its total in the same six months of 1980. For successful publishers, computer magazines are a goldmine—even by the magazine industry's well-padded standards. In America, gross profit margins of 25%-plus are commonplace—more than double the industry's average. But observers reckon that the bulk of advertisers' cash goes to established titles. Smaller magazines and newcomers can starve amid their rivals' plenty.

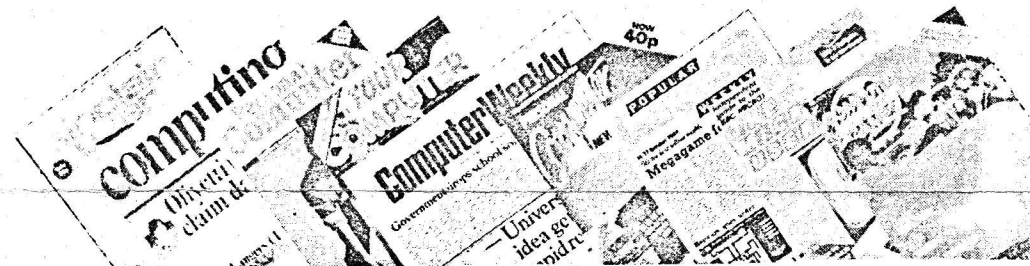
Traditional, computer-hobbyist magazines have been put on the hardest diet. Their readers have low incomes—many are students—so not the sort whom advertisers want to reach. In Brit-



America's top 10 computer magazines—by circulation, 1983

Title	Frequency	Circulation	Publisher	Audience	Launched
Computers and Electronics	(Monthly)	590,084	Ziff-Davis	Computer professionals/business users	1954
Personal Computing	(Monthly)	536,150	Hayden	Business users	1976
Byte	(Monthly)	409,387	McGraw-Hill	Computer professionals	1975
Family Computing	(Monthly)	315,830	Scholastic Inc	Hobbyists	1983
Popular Computing	(Monthly)	301,829	McGraw-Hill	Hobbyists	1979
Computer!	(Monthly)	289,048	ABC Publishing	Computer professionals	1979
Creative Computing	(Monthly)	245,066	Ziff-Davis	Computer professionals/business users	1974
Electronic Games Magazine	(Monthly)	192,260	Reese	Hobbyists	1981
Softalk/Apple	(Monthly)	165,522	Softalk	Apple owners	1980
PC World	(Monthly)	161,621	PC World Comms	IBM PC owners	1982

Sources: Folio; Advertising Age; Standard Rate and Data Service Inc.



Britain's top 10 computer magazines¹—by circulation, first half 1984

Title	Frequency	Circulation†	Publisher	Audience	Launched
Your Computer	(Monthly)	154,334	IPC	Hobbyists	1981
Computer Weekly	(Weekly)	112,265	IPC	Computer professionals	1966
Computing	(Weekly)	111,332	VNU	Computer professionals	1973
Computer News	(Weekly)	100,000*	CWC	Computer professionals/business users	1983
Sinclair User	(Monthly)	96,271	EMAP	Sinclair owners	1982
Personal Computer World	(Monthly)	93,625 ²	VNU	Computer professionals/business users	1978
Computer and Video Games	(Monthly)	87,625	EMAP	Hobbyists	1981
Micro User	(Monthly)	72,802	Database	Micro-computer users	1983
Engineering Computers	(Bimonthly)	57,079	Findlay	Computer professionals/engineers	1982
Popular Computing Weekly	(Weekly)	56,052	Sunshine	Hobbyists	1982

¹Excludes Big K, MSX Computing and What MSX, which claim print runs of 100,000, but for which there are no audited sales figures. †Audit Bureau of Circulation figures, *Jul-Dec, 1983. ²Controlled circulation. Source: Sportscene Specialist Press.

ain, the 85 or so computer magazines aimed at the business reader are buoyant; the 40 or so magazines that go to the home-computer owners are the wobbly ones. In America, the number of advertising pages in hobbyist computer magazines dropped by nearly 30% in the year to September, 1984, while those aimed at business users rose by 10%. At nearly \$19m, business-computer magazines took nearly twice as much in advertising revenues as hobbyist ones.

Jobs ads alone are likely to provide the business side of the computer press with a steady income. Hobbyist magazines are less secure. In Britain, home-computer makers such as Sinclair and Commodore plan advertising campaigns costing £4m and £6m respectively this Christmas, but

the retail market, is sent to 7,000 software dealers and some 500 software houses.

Hobbyist magazines, meanwhile, are setting their sights on the sort of businessman who has been inspired by the personal computer on his desk to buy a second computer for his home. Even Sinclair User has optimistically started publishing reviews of word-processing packages alongside those of games.

In America, Dun & Bradstreet's Datamation and CW Communications' Computerworld are pioneering examples of magazines that try to appeal to the general business reader who may be semi-literate in computers. But the irony of computer-magazine publishing is that the most successful English-language computer magazine, McGraw-

Britain's top 10 computer magazines—by ad pages, 1983

Title	Publisher	Ad pages* (Jan-Sep 1984)
Computing	VNU	5,500
Computer Weekly	IPC	4,000
Personal Computer World	VNU	2,400
Computer News	CW Communications	1,600
Micro Decision	VNU	1,400
Personal Computer News	VNU	1,300
What Micro	VNU	1,300
Your Computer	IPC	1,200
Micro User	Database	1,200
Datalink	VNU	1,200

Source: VNU. *Adjusted to A4 format

mand). Byte has been known to run 400 continuous pages of advertisements. Last year, its advertising revenues were \$28.8m, 79% of its total revenues. One of its issues carried around 800 pages, a record for any magazine.

Byte is now slimming by raising its advertising rates. It increased its advertising revenues in the first six months of this year by 19.2%, to \$14.3m, while cutting its advertisement pages by 6.1%.

Some way behind Byte come the magazines from the Ziff-Davis group. It too has raised its advertising rates and publishes its most successful magazines more frequently. Its PC Magazine, once a monthly, now appears every fortnight. That increased the total number of advertising pages by 66% in the first half of this year. With higher rates as well, its total advertising revenues rose by 350%, to \$9m.

The big publishing corporations are increasingly dominating the top of the computer-magazine market in both Britain and America. McGraw-Hill, owner of Byte, has another top-10 advertising-revenue earner in Popular Computing. But one of the big boys' most effective methods for staying on top has been to buy the best of the torrent of new publications coming from the publishing industry's equivalent of the Silicon Valley garage.

McGraw-Hill acquired Byte in 1979 when it bought it from Mr Wayne Greene, who founded the magazine four years before. A wealthier Mr Greene went back to scratch and set up a new empire—Micro-computing, inCider (for users of Apple machines, geddit?), 80 Micro (for Tandy owners) and the ill-fated Jr (for IBM PC Jr users) and Desktop Computing. These he sold in 1983 to CW Communications, owners of Infoworld, for \$16m.

Computer publishing has spawned another giant. Three of America's top five revenue-earning computer magazines, PC Magazine, Creative Computing and Computers and Electronics, are still owned by one man, Mr

William Ziff. Although the business and general titles in his Ziff-Davis group are up for sale for \$500m, Mr Ziff plans to keep his 13 computer titles.

The big three in British computer publishing are Reed International's IPC subsidiary, the Dutch-owned VNU and East Midland Allied Press (EMAP). Each has a big-seller in the British lists.

IPC's success-story is Computer Weekly, an 18-year-old tabloid that is said to reach one in 10 British businessmen. It has a controlled circulation of 112,000. Its big rival is Computing, born in 1973 and bought by VNU from Haymarket Publishing in 1980 for £7m. Edited by Mr Richard Sharpe, Computing has a slightly smaller circulation than Computer Weekly, but is regarded as being better designed and runs a glossy supplement each week.

With a circulation of 120,000-plus, IPC's monthly Your Computer is the best-selling hobbyist magazine. A third of its sales are outside Britain. The hobbyist magazine with the biggest advertising revenue is Personal Computer World, which VNU bought from Bunch Books two years ago. PCW has graveyards of 120 pages of continuous advertising. Not quite in Byte's class, but they help bring in VNU more than £2m a year in revenues.

Mr Graham Andrews, managing director of VNU's British operations, says that his company has no plans for more hobbyist titles. Its next big launches will be magazines for computer-using businessmen. VNU and EMAP also make money from computer shows, cashing in on their magazines' names. Personal Computer World's show is the best-attended computer exhibition in Europe.

The trend towards a business audience is clear. EMAP's sales from computer magazines in the year to March, 1984, were £11m, up 70% on a year earlier. While sales of its hobbyist titles rose by 21%, those of its business ones were up by 59%.

America's top 10 computer magazines—by advertising revenue, 1983

Title	Publisher	Revenue \$m	Ad pages
Byte	McGraw Hill	28.8	4,394
Personal Computing	Hayden	23.9	2,306
PC Magazine	Ziff-Davis	15.0	4,225
Creative Computing	Ziff-Davis	11.9	2,159
Computers and Electronics	Ziff-Davis	11.7	686
Info World	CW Communications	10.1	2,611
PC World	PC World Comms	8.2	1,966
Compute!	ABC Publishing	7.7	1,787
Popular Computing	McGraw-Hill	7.4	1,428
Softalk/Apple	Softalk	7.3	1,947

Source: Adscope

most of the money will go on television commercials.

The problem for computer-magazine publishers, therefore, is to find the readers advertisers want to reach. About 70% of the advertising in computer magazines now comes through advertising agencies. Unlike the often unsophisticated electronics engineers and games-writers who placed many of the advertisements a few years ago, the agencies aim at specific readers. Unfortunately, many businessmen shun computer magazines because they cannot tell a microchip from a small french fry.

One solution to the publishers' problem is to put computer magazines on controlled circulation—ie, to give them away to the readers thought to be of special interest to advertisers. Scientific Computing and Automation is a recent free-sheet, sent to 70,000 scientists and administrators in America who use computers in laboratories.

In Britain, Leisure Electronics Trader restricts its circulation to 8,500 high-street retailers and distributors of computer and electronic games and toys. Software File, another of 1983's newcomers and little more than a directory of software available in

Hill's Byte, is also among the most technical.

Like other successful computer magazines, Byte has a problem that causes many of its younger rivals to turn green with envy: it has to reduce the number of advertising pages it carries because disgruntled readers can no longer find the editorial amid all the glossy photographs of new products. Byte made a profit of \$9m in 1983 on sales of \$36.6m. That was equivalent to more than 7% of the group net income of its owner, McGraw-Hill, the books-to-broadcasting conglomerate.

Big Byte

Byte is aimed at owners and users of microcomputers. Its seriousness is indicated by its subtitle, the Small Systems Journal, and its hefty \$3.50/£2.10 cover price. It has a loyal circulation of more than 400,000 for each monthly issue in America and 50,000-plus in Britain.

In more senses than one, Byte is the industry's heavyweight. It regularly runs to 500 or more pages, 60% of which are advertising (and which can cost up to \$6,000 a page—almost twice as much as Britain's best-selling computer magazine can com-